TIIAP FY 1999
Project Narrative

Indiana University

Grant # 18-60-99017
Community Networking
Indianapolis, Indiana

Project Definition

Since 1991, the number of neighborhood organizations registered with the city of Indianapolis has almost doubled, to nearly 400. This growth in community-based organizations (CBOs) was facilitated by the city government's "Building Better Neighborhoods" initiative, building on the efforts of private citizens. Leaders of neighborhood associations, block clubs, homeowner organizations, and crime watch clubs share a commitment to make their communities better places to live. Although they have unique knowledge and perspectives on their own neighborhoods, these volunteer leaders often lack the resources necessary to assess the assets and vulnerabilities of those neighborhoods. Even professional staffs of community development corporations or umbrella neighborhood associations complain of lack of data and the understanding of how to apply information to the problems faced in their neighborhoods.

The SAVI Community Connections Project (SCCP) will develop interactive, Internet-based tools that use geographic information system (GIS) technology to allow Indianapolis's inner city neighborhoods to access and assimilate diverse sources of data about their communities. Through SCCP, community leaders will be trained to input information about their own neighborhood and to examine the spatial relationships between this data and the core information maintained and regularly updated in the SAVI human service and community planning database. SCCP participants will learn to think spatially about planning problems by navigating through pre-set planning scenarios and by being trained to develop and test their own scenarios.

SCCP will build upon the efforts of the ongoing SAVI database project, which represents a six-year collaboration between the United Way of Central Indiana and The Polis Center at Indiana University Purdue University Indianapolis. SAVI (for Social Assets and Vulnerabilities Indicators) gathers information about the Indianapolis MSA from disparate sources into one standardized source**.** (See Appendix K for list of SAVI datasets and data providers.) SAVI has addressed the challenges associated with the collection and integration of disparate data into a single database, including the development and implementation of data quality, documentation, and classification standards and the development of a sustainable data processing mechanism.

The SAVI database was designed to be used by human service personnel, community planners, and other professionals. Typically these individuals use the system at "enhanced" access sites where trained GIS analysts are on hand to assist them. Attempts to provide SAVI access to a broader range of community organizations and individuals have been less successful. We currently distribute SAVI to public libraries throughout the Indianapolis MSA as a series of digital maps loaded on stand-alone workstations. Although desktop GIS tools are becoming increasingly user-friendly, we have discovered that they are still too complicated for many users. Additionally, the need to regularly load data and software updates at these library sites represents a maintenance challenge to library staff.

The capability of linking GIS systems to Internet technology, in addition to the advancement of open development environments and standard database interface tools,

make a network solution viable. SCCP will use network technology to provide access to a centralized SAVI database and analysis tools that require minimal skill and training to operate. Five strategically chosen inner city community centers will be connected to the Internet and used as community access and training sites. An enhanced web site will be established that employs a web server, map server, data server, and interactive user interface.

These tools will give neighborhood organizations increased access to information about their communities, provide improved opportunities for training and learning, and ultimately increase participation in the community planning and evaluation process. Local community members will be empowered by the ability to formulate geographic questions about their community, to identify pertinent data, and to apply spatial analysis for problem solving. Individuals will develop technical and analytical skills that will be valuable not only in the community planning setting, but also in the job market and their everyday lives. These successes will in turn bring additional resources into the community for solving social problems. The methods for identifying these outcomes are described in the evaluation section.

Evaluation

The strategies of the formative evaluation model will be employed to collect the information needed to improve the effectiveness and efficiency of SCCP as it is being developed. Focus groups and interviews will be conducted within the target communities initially to define user requirements for the SCCP interface. Quantitative and qualitative feedback will be gathered from community users through interviews and discussion at quarterly meetings, a web site user feedback form, and course evaluation forms distributed at workshops and training sessions. Post-testing of the implemented technology will also be conducted to assess its usability. Quantitative data will be collected which describes system usage or non-usage. Qualitative data will be collected which describes end-user satisfaction and the perceived outcomes of the project.

The evaluation will seek to answer the questions 1) what is the value of the results, 2) is the process well-managed, and 3) does the process support broader community development principles? The proposed evaluation context is that defined by Michael Barndt, University of Wisconsin-Milwaukee, for evaluating public participation GIS programs[1]. See Appendix A for a specific description of what we expect to learn from the evaluation.

Project evaluation will be led by the Community Service Council (CSC) of Central Indiana, under the guidance of the director of CSC. In addition to developing evaluation materials and conducting focus groups and interviews with the assistance of the Community Liaison hired by the project, CSC will develop final outcome reports. The

[1] Michael Barndt, "A Model for Evaluating Public Participation GIS Programs," prepared for *Varenius Specialist Meeting - Empowerment, Marginalization, and Public Participation GIS, October 15-17, 1998, Santa Barbara California*, Online. (1999) Available at: http://www.ncgia.ucsb.edu/varenius/ppgis/papers/barndt.html.

Public Services sub-committee of the Indianapolis Mayor's High Tech Task Force will be approached for evaluation of process management. This task force is an ideal group to evaluate SCCP, as three of its goals apply directly to SCCP, including promotion of resources and capabilities, technology and innovation, and workforce development.

Significance

While the concept has been widely discussed, public participation GIS remains largely untested. It is recognized that "improving spatial orientation by integrating (geographic information technologies) into the participatory activities of community planning is not a trivial task"[2]. By anticipating advancing network and GIS technology and actively engaging project partners in the design process, SCCP seeks to push the limits on the development of web-based search and analysis tools that individuals may access for community planning. It will provide a national model for the design and implementation of spatial analysis tools for use by disadvantaged neighborhoods and individuals.

The Internet does not yet provide many opportunities for users to develop new information using web-based GIS tools. Most web sites allow the user to download a single source of information at a time and do not provide data in user-ready format, but rather as compressed files that require specific applications for use. Most GIS-oriented web sites provide only mapping and/or simple query functions and do not take the technology the extra step needed to facilitate users' ability to think and analyze spatially.

With the continued improvement of the infrastructure that supports the Internet and advancement of GIS technology, it is becoming possible to implement powerful applications on the Internet that were previously possible only on individual workstations. These high-end applications will become increasingly accessible to the public through satellite and fiber optics technology.

The Neighborhood Electronic Monitoring System (NEMS), being developed by the Neighborhood Knowledge Los Angeles (NKLA) Project funded through TIIAP in 1998, demonstrates the value of integrating multiple datasets into a single system that can be interactively queried by users. SCCP hopes to further advance the concept of an internet-based community planning tool by not only providing access to data, but also to mapping and analysis tools that aid users in extracting additional meaning from the provided data.

Through the proposed SCCP web interface, users will be able to submit queries that will access data sets in real-time, aggregate and reclassify the data to the desired neighborhood level, and display the results in both graphical and tabular formats. SCCP will allow users to input and map their own neighborhood data and to formulate unique queries and combinations of data. Symbology and classifications will be pre-set to allow the consistent comparison of different datasets. SCCP will be dynamic in terms of the

[2] Howard, "*Geographic Information Technologies and Community Planning: Spatial Empowerment and Public Participation*," prepared for *Varenius Specialist Meeting - Empowerment, Marginalization, and Public Participation GIS, October 15-17, 1998, Santa Barbara California*, Online. (1999) Available at: http://www.ncgia.ucsb.edu/varenius/ppgis/papers/barndt.html.

continuing expansion and update of the database and of the querying ability provided to users.

Project Feasibility

Through the integration of World Wide Web, GIS, and database technology, SCCP will develop a robust easy-to-use interface capable of serving a growing user community and increasingly sophisticated user queries. Users will be given the ability to perform queries that are dynamic and data driven, while also being lightweight and scalable. The tools will minimize the use of system resources and the user load will be distributed across many servers.

The diagram in Appendix B illustrates the proposed network architecture. Existing network resources, including ordinary telephone lines and modems and special purpose data lines, will be used to link 5 community access sites to the Internet. (See Appendix C for a description of existing network services and resources.) These community access sites will be provided web server access and email access. An established Internet service provider (ISP) will be chosen for each access site based on capacity and redundancy of Internet connections. ISDN technology was eliminated from consideration. (See Appendix D for a discussion of ISDN.) Computer workstations will be either purchased or leased for these access sites, depending on which option is most economical. The Polis Center will house a web server, map server, and database server. The SCCP interface, residing on the map server, will be accessed through the web server. The map server will access data on the data server to meet user requests and subsequently push the requested information to the user through the web server. (See Appendix E for all hardware and software specifications.)

JAVA, which is considered the primary language for the development of client-side applications, will be used for SCCP application development. It is an object-oriented language that is interpreted using a platform-specific virtual machine, making its applications portable across many platforms.

Environmental System Research Institute's (ESRI) industry standard GIS applications will be used to allow multiple users access to GIS information. Specifically, ESRI's MapObjects Internet Map Server (MO IMS) will be used to implement GIS functionality on the server side. MO IMS will serve data that is generated by a MapObjects interface to the GIS data repository and query engine, which will be ESRI's Spatial Database Engine (SDE). SDE allows the integration of geographic entities within a relational database management system (RDBMS). It is implemented as client-server architecture and allows multiple platforms, multiple databases, and multiple client applications to interact with each other. Alternative technologies for enabling GIS in the Internet are limited at this time and cannot compete with the ability of ESRI solutions to provide a complete set of tools and proven technologies.

Industry standard ORACLE RDBMS technology will be used to provide a client/server database architecture. The database files and RDBMS software will reside on a data server. ORACLE can handle large amounts of data, be scaled to incorporate many

servers, and coupled with SDE to spatially enable database tables. It also provides coordinated management of spatial and tabular data, independent data updates and data queries, referential integrity, failure recovery, and indexing tuning.

The proposed SCCP model uses TCP/IP networking and client/server architecture in all aspects of the model, allowing it to be interoperable with any TCP/IP networking system incorporating client/server architecture. Additional servers can be added without major changes to the system. By design, all three servers, the RDBMS server, map server and web server, will share the overall processing of a map and thus the computing load. This will allow the model to grow, as the number of clients grows, without degrading the overall performance of the system.

A low maintenance system can be achieved by using a database driven approach in all aspects of the system. This approach allows the dynamic generation of repetitive tasks, which will reduce the maintenance and upgrade of application code. The Polis Center will maintain the web site software and continue to upgrade the interface and supporting system based on user feedback and technological advances. Each access site will sign an agreement confirming its responsibility to maintain access site hardware and software after completion of the grant period.

The Polis Center will manage and implement the proposed project, working in partnership with United Way of Central Indiana, Indianapolis Neighborhood Resource Center, Indianapolis Marion County Public Library (IMPCL), Metro Ministries, and Environmental System Research Institute (ESRI). This collection of project partners has the required range and depth of project management, technical, and community service skills and experience.

The United Way (UW) of Central Indiana and its predecessor organizations have engaged in human services planning and research in Central Indiana for more than seventy years. UW serves as the owner and trustee of the SAVI database and is responsible for the long-term viability and community oversight of SAVI. The Indianapolis Neighborhood Resource Center (INRC) is a private non-profit agency specifically designed to present training opportunities to neighborhood residents. INRC has been instrumental in advertising SAVI training and is eager to participate in the proposed SCCP training development activities. Metro Ministries, a faith-based organization that plays a significant role in building community in Indianapolis, is interested in participating in focus groups to provide input on how to make SAVI more accessible to inner city neighborhoods. ESRI is a leading GIS technology vendor with the desire to see its products used for innovative projects and the ability to provide advanced support for GIS application development. (See Appendix F, Project Partners, for additional descriptions of partner qualifications.)

The Polis Center is a multidisciplinary urban analysis unit of Indiana University Purdue University Indianapolis. Through its knowledge of advanced information technology, The Polis Center creates, manages, and applies information to problems and issues of mutual concern. Since the creation of The Polis Center in 1989, its 37 full-time staff members have completed over 200 projects in partnership with a wide range of

community groups, governmental agencies, businesses, not-for-profits, religious organizations, schools, and individuals. The Polis Center is the project manager for the SAVI project, which has required the combined efforts of the Center's computer technology and community affairs/urban analysis staffs, to design the SAVI database so that it meets community needs, yet is technically sustainable. The team that will implement the proposed SCCP project represents a range of technical and analytical experience in innovative applications. (See Appendix G for organization chart and Appendix F for description of The Polis Center projects).

The project implementation timeline is included in Appendix H. The project is divided into three main phases - Project and System Design, System Development and Implementation, and Evaluation. The major tasks and staff time assigned to accomplish those tasks within the three-year grant period are reasonable. The budget and budget narrative both show a clear relationship to the major tasks. The project is designed to be completed and evaluated within the three year TIIAP grant period. The match of TIIAP funds to local funds is 1:1, meeting the required 1:1 match. Local funds are provided by our partner, the United Way. (See Appendix I, Letter of Financial Support.)

The current SAVI agreement includes joint responsibility between The Polis Center and the United Way for the development a business plan for sustainable funding to support the SAVI project. The SAVI project has received funding support from the Coalition for Human Service Planning, with participation by Lilly Endowment Inc., Central Indiana Council on Aging, Health Foundation of Greater Indianapolis, City of Indianapolis, Indianapolis Foundation, and the Legacy Fund. The SAVI project continues to receive strong local support from the business and philanthropic communities of Central Indiana. (See Appendix J, Funders of SAVI Expansion.) Other organizations have supported the SAVI project by supplying data. (See Appendix K, SAVI Data Source Providers.)

Community Involvement

The Community Service Council will use its knowledge of community service assessment to lead the evaluation of the proposed project. INRC and the Indianapolis Marion County Public Library (IMPCL), which are both existing SAVI public access sites, will be established as two of the five SCCP community access sites. They will actively participate in system design and testing phases and serve as a regular workshop sites. Metro Ministries, a faith-based organization that plays a significant role in building community in Indianapolis, is interested in participating in focus groups to provide input on how to make SAVI more accessible to inner city neighborhoods. This group will provide significant community input on interface design. ESRI actively promotes the use of its products innovative projects, and as such is eager to provide software and licenses as well as critical technical resources at reduced cost in support of SCCP's proposed advanced GIS web-based implementation. (See Appendix L for Letters of Support.)

The Mayor's Office has targeted seven neighborhoods in the Indianapolis inner city for CBO development. SCCP will select three of these for project participation, based on an assessment of the strength of their social infrastructure, including the presence of well-organized, representative neighborhood associations, with residents and leaders who will

involve themselves with the development and implementation of SCCP. A SCCP community access site will be established in each of the three chosen neighborhoods.

The Polis Center has tested the needs of community leaders, clergy, teachers, and citizens and tested curriculum and teaching methodologies through community based projects, such as SAVI and the Religion and Urban Culture (RUC) project. Information has been gathered through a clergy focus group, a targeted workshop at the Indianapolis Neighborhood Resource Center and through a survey of SAVI enhanced and public site professional staff during quarterly training events. These meetings and focus groups have assisted in the identification of the gaps between community needs and community resources.

SCCP is aimed at the leadership of community-based organizations in Indianapolis. These organizations are led by citizens who give of their spare time to build community in their neighborhoods. Their leadership is drawn from the front-porches, pulpits, and playgrounds of Indianapolis neighborhoods. Whether volunteer or professional, these leaders in community-based organizations have direct knowledge of and links to the social networks that constitute community at the neighborhood level. By working through existing neighborhood leaders, SCCP will involve the social networks in Indianapolis most challenged communities.

The SAVI project has memoranda of understanding with all source providers of confidential data. Confidential SAVI data is available in aggregated format to preserve data privacy. Database security capabilities prevent users from accessing raw SAVI data in the ORACLE database. The data that SCCP users input for use with the SAVI data will not be collected for distribution to other users. All data outputs and results will be stored on the end users workstation, rather than being stored on the SCCP servers. Existing web technology is in place that prevents undesired access to data during network transfer, including certificates, PGP, and Pstore/PFX.

Reducing Disparities

This proposal targets organizations that serve people residing in the geographic center of the county, Center Township. Staffs of community based organizations (CBOs) that plan, implement and evaluate programs benefiting distressed populations will be the primary end-users, the direct beneficiaries of SCCP. The residents of Center Township that CBOs serve will benefit both directly and indirectly. CBO staff could be characterized as dedicated, over-burdened, and focused on implementing programs. The following barriers to accessing community planning tools have been identified through surveys: 1) Cost and maintenance of GIS, 2) need for staff trained in GIS, 3) inconvenient access site locations, 4) lack of neighborhood specific data, 5) enhanced sites do not accommodate direct access to all users, 6) competitive disadvantage when seeking funding or assessing programs whose designs and evaluations lack factual basis and community context.

In addressing disparities between Center and other Township residents, we reflected social conditions by using two types of profiles. The first profile type is tabular, showing

Center Township with slower population growth, greater population density, lower per capita income, a concentration of female-headed families and a lower homeownership rate. The second profile uses some of the information available from the SAVI database to graphically represent the following distress indicators; (See Appendix M for both table and Maps.)

- 1998 Open TANF Recipients
- 1997 Births by Mothers Under 19
- 1998 Part One Crimes
- 1998 Open Food Stamp Recipients
- 1997 Children in Need of Services

Barriers to information infrastructure technologies and services will be overcome for CBOs through the 1) use of network technology to provide access to SAVI database and analysis tools, 2) provision of a full-time project staff member for access site training, 3) dedication of staff member for assessing user training needs, 4) provision of Internet mapping "in house" to CBOs and residents, 5) development of functions that allow users to input and map their own data, 6) timely access to SAVI for users previously dependent upon powerful workstations, and 7) use of formative evaluation that will incorporate user-defined improvements.

For Center Township residents barriers to discovering aspects about their community will be addressed through training events. These events will emphasize practical applications. For instance, given the opportunity to access the web site at numerous locations, a single mother may be able to discover where daycare facilities are located and their proximity to public transit routes. The project will directly benefit individuals by making information from a variety of sources available in one location. As noted in Appendix M, the population density is 2.5 times that in the balance of the county. As a result of focusing on the limited geography of Center Township, SCCP has the potential of affecting many more people per square mile. Finally, Center Township residents will *indirectly* benefit from CBOs increased capacity to deliver programs addressing area disparity.

Documentation and Dissemination

The following set of documents will be developed during the course of project work, to capture the complete SCCP design, development, implementation, and evaluation process: 1) User requirements, 2) functional specifications, 3) interface specifications, 4) database specifications, 5) user guides and training manuals, 6) community meeting minutes, 7) quarterly work plans, 8) quarterly progress reports, 9) evaluation plan, and 10) evaluation results. The project team will attend and/or make presentations on an annual basis at the ESRI GIS conference and at a minimum of one community planning based conference. The project team will participate annually at a minimum of one technology workshop and one community planning workshop. The team will also prepare articles for technical, social service, and economic development journals and publications. Project status will be reported regularly in the established SAVI Newsletter and on the SAVI web site. A final white paper will be developed upon project completion that describes the project objectives, challenges faced, and lessons learned.

Appendix A: Expected Evaluation Learnings

In relation to the value of results, we expect to learn if the data and tools produced:

- apply to the issues the community organizations are facing,
- support needed decision making,
- fit the time schedule of planning activities and priorities,
- have the necessary level of accuracy,
- offer insight, perspective, and detail,
- allow the exploration of data across datasets,
- support both qualitative and quantitative analysis, and
- result in changed outcomes.

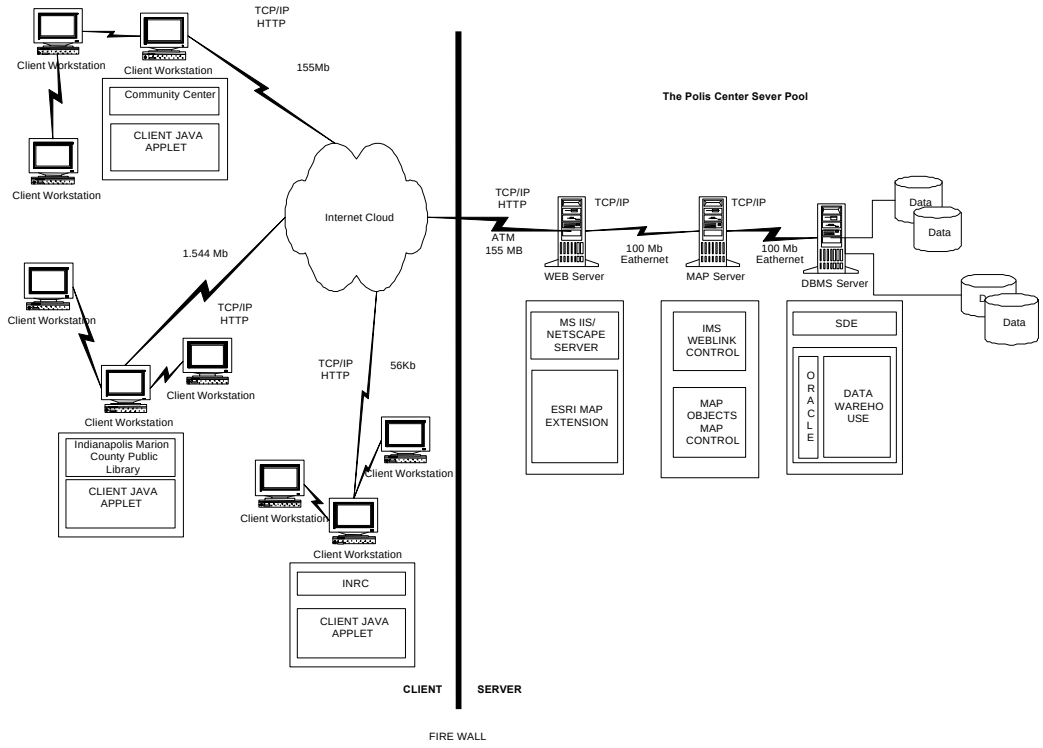
In relation to process management, we expect to learn if the process is:

- sustainable,
- replicable,
- efficient,
- timely,
- immediate, and
- sophisticated.

In relation to the support for broader community development principles, we expect to learn if the process:

- integrates the components of a working community information system,
- encourages a more open dialog using the organized information,
- increases access to information and ensures the right of access,
- keeps priority setting in the hands of the community,
- addresses process objectives,
- increases the capacity of local community system to use the technology, and
- integrates into a broader community development process.

Appendix B: Network Architecture



Appendix C: Existing Services/Resources

1) IUPUI Networking service
   The Polis Center is connected to the Internet via the IUPUI backbone. The existing network supports a (Asynchronous Transmission Mode) ATM 155mb bandwidth. End users at universities will be able access SCCP through this resource.

2) Internet Service Providers
   End users at community access sites and INRC will be able to access SCCP through the following options:
   a) Dedicated or non-dedicated analog 56Kbps-v.90 dial-up modem connections through telephone lines.
   b) Dedicated or non dedicated digital 64 – 128 Mbps ISDN CSU/DSU connections
   c) Dedicated T-1 1.54 Mbps CSU/DSU connections

3) Internet 2
   Internet 2 provides high bandwidth T-3 45Mbps connections to research universities. The maximum capable bandwidth is 2.5Gbps. End users at research universities will be able to access SCCP through this resource.

Appendix D: Technological Discussions

ISDN Discussion

Integrated Services Digital Network (ISDN) technology, which would provide faster transmission rates for properly equipped clients, was not chosen for implementation for several reasons. First, if our web design and architecture were based on ISDN technology, we would be limiting our pool of possible web users. The majority of the web users will be using 28.8 Kb/s lines, and would actually experience reduced service. Secondly, ISDN is not generally available in central Indiana, and may not be available at all the selected public access sites. Thirdly, ISDN's high, recurring cost threatens the long-term sustainability of the public access sites. Finally, the release of more cost-effective technology, such as Asymmetric Digital Subscriber Line (ADSL) technology, is anticipated in the near feature. This technology will provide enhanced support of multimedia telecommunications and high-speed data communications, at a predicted lower cost. Because this technology has not yet been released and its expected pricing is not yet available, its implementation cannot be currently considered, although The Polis Center will remain in contact with the telecommunications company and will re-evaluate this alternative as it becomes available.

GIS Internet Techniques Discussion

Alternative technologies for enabling GIS in the Internet are limited at this time and cannot compete with the ability of ESRI solutions to provide a complete set of tools and proven technologies to enable GIS in the WWW. The Open GIS Consortium has not finalized the alternative ISO/TC211 metadata standard. Furthermore, the ORACLE Spatial Cartridge (SC) does not support many spatial operations, such as complex spatial querying and geocoding. The Intergraph Geomedia solution also does not support as many functions as ESRI's MapObjects.

Appendix E: Hardware/Software Specifications

Work Stations:

CPU	Intel pentium II 400 MHz workstation
Memory	128 MB
Monitor	21 in color monitor
Video	8 MB 3D AGP
Hard Drive	8.4 GB
Modem	56 K V.90

Cost: $2500.00 each + $35 / month ISP connection

Servers:

Web server
- Dual CPU Intel Pentium
- 512 MB Memory
- 8 GB Hard Drive

Cost: $5,000.00

Database Server
- Dual CPU Intel Pentium
- 1 GB memory
- 45 GB Hard Drive

Cost: $10,000.00

Map Server
- Dual CPU Intel Pentium
- 512 MB Memory
- 8 GB Hard Drive

Cost: $5,000.00

Software:

WINNT OS /Microsoft Internet Information Server
Cost: $4,000.00

ESRI MO IMS, MapObjects, SDE
Cost: $20,000

ORACLE RDBMS
Cost: $25,000.00

Microsoft Visual Studio Development Tools
Cost: $1,000.00

Appendix F: Project Participants

The Polis Center

The word *polis* is Greek for city, and accordingly The Polis Center deals with urban-related issues. Located at IUPUI, we are an academic center with a difference. We work in community-based partnerships with a wide variety of groups and individuals on issues of interest to metropolitan Indianapolis and other Indiana cities.

- **Multidisciplinary**
  The 40-member staff represents a wide range of disciplines and expertise, from urban planning, economic development, and information technologies to community studies, geography, sociology, and history.

- **Community-Oriented**
  Since our creation in 1989, The Polis Center has completed over 200 projects in partnership with a wide range of community groups, governmental agencies, businesses, not-for-profit organizations, schools, and individuals. Our initial project, *The Encyclopedia of Indianapolis,* not only involved 485 local authors, but it could not have been done without wide community support. Through our partnerships, we aim to involve the university in the life of the community, and the community in the life of the university. We believe this process of community-university engagement will form relationships that increase the capacity of the community-at-large to address local issues in ways that support and affirm the common good. We hope to develop a common vocabulary, the language of the local, that embraces multiple perspectives yet allows Indianapolis as a metropolitan community to identify and promote its common interests.

- **Entrepreneurial**
  Spanning the boundaries between university and community, The Polis Center draws on the intellectual resources of the university, creatively applied to the challenges facing communities and organizations in the real world. We maintain some of the most comprehensive databases on Indianapolis and Central Indiana. We apply information and analytical skills to the unique needs of our partners, working according to their schedules and deadlines. While we are part of Indiana University Purdue University Indianapolis, our activities are funded externally in the form of grants and contracts. In the past ten years, our projects have totaled over $20 million.

- **Applied Research**
  Our projects reflect our commitment to developing needed information and products. We are working with the United Way/Community Service Council to establish a computer database of Social Assets and Vulnerability Indicators (SAVI) for metropolitan Indianapolis. We also help local governments throughout the state use an advanced information technology known as GIS, or geographic information systems, to aid planning efforts. We have created exhibits at The Children's Museum of Indianapolis, Thomson Consumer Electronics, and Goodwill Industries. We also have worked on the history of race relations in Greater Indianapolis, explored aspects of local popular culture, and examined metropolitan and neighborhood development.

Selected Projects and Partnerships of The Polis Center

Community

- *The Encyclopedia of Indianapolis*, the communities of Greater Indianapolis
- United Way Community Assets and Needs Report Indicators Project, United Way/Community Service Council
- Finding Common Ground: A Project on Race Relations, Urban League, Trustee Leadership Development, Indianapolis Commission on African-American Males
- The Suburbanization of Indianapolis, Indiana Humanities Council
- *The Main Stem: A Social and Architectural History of the North Meridian Street Historic District*, Historic Landmarks Foundation of Indiana
- Law and Community Institute, Indianapolis Police Dept and Marion County Sheriff
- Discovering Indianapolis: Three Generations of a Community's Children, The Indianapolis Children's Museum and Indiana Humanities Council
- Museums in Indiana: Their Status and Needs, Association of Indiana Museums
- *International Guide to Indianapolis*, Partners for Livable Places & International Center
- Discover Indianapolis Breakfast Seminars, Barnes & Thornburg
- Urban Agenda Public Lectures, The Associated Group

Religion

- Religion and Urban Culture, The Lilly Endowment
- History of Indianapolis from a Religious Perspective, Indiana Religious History Assn
- Teaching the Role of Religion in American History, Indiana Humanities Council
- Religion in Public Schools, United Methodist Church Board of Global Ministries
- *Historical Atlas of American Religion*, Oxford University Press
- St. Alban and Its Communities, St. Alban's Episcopal Church & Episcopal Diocese
- Congregations in Changing Communities, Emory University and Boston University
- Spirit and Place: A Gathering of Voices, an annual civic festival
- Electronic Cultural Atlas Initiative, Univ. of California-Berkeley

Government

- GIS Design and Implementation for Wayne County, Indiana, Wayne County Board of Commissioners
- GIS Design and Implementation for St. Joseph County, Indiana, St. Joseph County Board of Commissioners
- Planning Analysis of Carmel, Indiana, City of Carmel, Indiana
- GIS Needs Assessment and Implementation Plan, City of Noblesville, Indiana
- Projection of Student Enrollments, Warren Township and Franklin Township Schools
- Eastern Howard County School Corporation Enrollment Project
- Permit Records Inventory and Management Plan, City of Indianapolis, Indiana
- Electronic Mapping for Emergency Preparedness, Metro Emergency Communications Agency
- Survey and Route Analysis, Indianapolis Public Transportation Corporation
- Feasibility Study, Indiana State Fair Board
- Physical Infrastructure Mapping and Facilities Management Database, IUPUI
- Indianapolis-Marion County Public Library Facilities Management Plan, IMCPL
- Technical support for Indianapolis Mapping and Geographic Infrastructure System (IMAGIS)

Indianapolis Neighborhood Resource Center (INRC)

Since 1992, the Indianapolis Neighborhood Resource Center (INRC) has effectively helped existing and emerging neighborhood associations and their leaders build community capacity. Through training and outreach, the INRC provides skill and knowledge development for volunteer leaders in a variety of areas. The INRC has played an important role in dissemination of information about the SAVI resources available to the community and has partnered with The Polis Center and CSC in helping community representatives learn how to access SAVI in its existing forms. Although the INRC's computer equipment needs updating, their laboratory has provided an important point of access to World Wide Web resource for neighborhood representatives.

Indianapolis Marion County Public Library

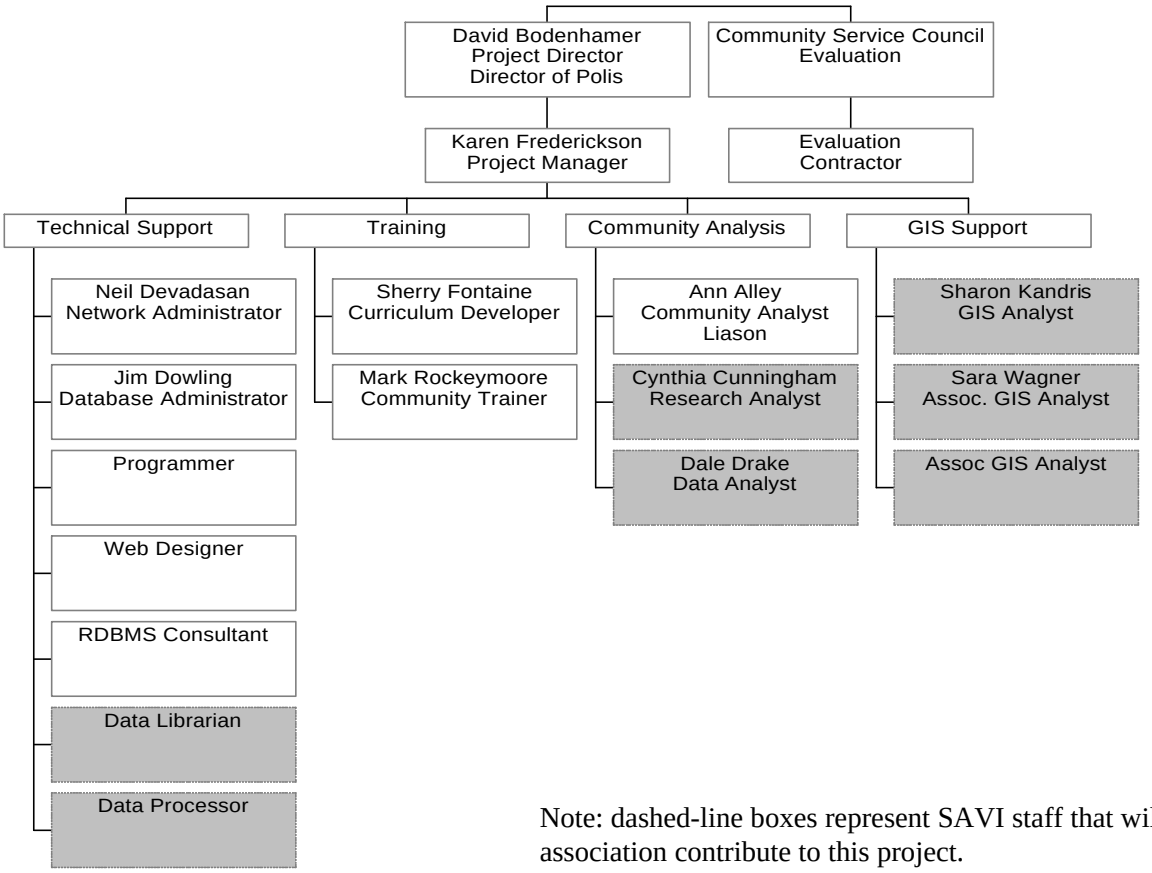
Community citizens and leaders also can access Internet resources at local branches of the Indianapolis Marion County Public Libraries. The public libraries have made development of electronic resources a priority. As important neighborhood assets with decades of history in providing information to communities, the Indianapolis Marion County Public Libraries have been active partners in making SAVI data available. SCCP proposes to work in partnership with the public libraries and the IUPUI University Library to make data provision even more effective and responsive to community needs.

Metro Ministries

For the past six years, The Polis Center has explored the roles that religious organizations play in building community in several Indianapolis neighborhoods. Indianapolis Metro Ministries is one of the agencies that leads in these efforts and their partnership represents our efforts to involve clergy and religious organizations in SCCP. Our research shows that United Methodist Churches are consistently in leadership roles in community development, working closely with other secular and religious organizations in their neighborhoods. Methodist churches are also relatively more likely than other churches to be invested in computers and linked to the Internet. Thus neighborhood based Methodist churches will play critical roles in providing access for community based organizations, their leaders and members, to computers and thus to SAVI and other Internet resources. The assistance of Metro Ministries will enable us to reach out more effectively to the community leadership represented by neighborhood churches and clergy.

Appendix G: SCCP Organizational Chart

SAVI Community Connections Project



Note: dashed-line boxes represent SAVI staff that will by association contribute to this project.

Appendix H: Project Timeline

Appendix I: Letter of Financial Support

United Way Letter

Appendix J: List of Funders for SAVI Expansion

Boone County
Boone County Community Foundation

Hamilton County
Bang Laboratories
Carmel-Clay Schools
Conseco
Hamilton County Alliance
Hamilton County Council
Hamilton Southeastern Schools
Legacy Fund Community Foundation
Monroe Guarantee Insurance
Noblesville Schools
Noblesville Southeastern Library
Onex, Inc.
Westfield-Washington Schools

Hancock County
Central Indiana Power
Hancock County Community Foundation
Hancock County Economic Development Council
Hancock Memorial Hospital
Interlocal Association
IPL-Hancock

Johnson County
Acordia
Bargersville Fire Department
Johnson County Step Ahead
Johnson County United Way
Partnership for a Healthier Johnson County

Madison County
Community Hospital, Anderson
Madison County Community Foundation
Madison County Council of Governments
Madison County United Way
South Madison Community Foundation

Region
Cinergy
Indianapolis Foundation
The Health Foundation of Greater Indianapolis Inc.
Lilly Endowment Inc.
NBD Bank
Metropolitan Indianapolis Realtors

Shelby County
Major Hospital
Shelby County Chamber of Commerce
Shelbyville City Government
Shelby County Community Foundation
Shelbyville News

Appendix K: List of Data Source Providers

Type of Data	Data Years Provided*	Area Covered	Data Source
Reference geography (e.g., census tract, township, streets, county, streams)	N/A	Indianapolis MSA	Multiple sources, including but not limited to IMAGIS and U.S. Bureau of the Census.
Census	1990	Indianapolis MSA	U.S Bureau of the Census Data
Education	1980, 1990-1998	Indianapolis MSA	State of Indiana Department of Education Data
Housing	1992-1997	Indianapolis MSA	Home Mortgage Disclosure Act Data
Welfare	1996-1998	Indianapolis MSA	State of Indiana Family and Social Services Administration (FSSA) Data
Birth	1988-1997	Marion County	Marion County Health Department Birth Certificate Data
Death	1988-1997	Marion County	Marion County Health Department Death Certificate Data
Fetal Death	1988-1997	Marion County	Marion County Health Department Fetal Death Certificate Data
Crime	1992-1998	Indianapolis Police Department (IPD) District	Uniform Crime Report Data
Crime	1993-1998	Marion County	Indianapolis Police Department Data
Juvenile Justice	1992-1997	Marion County	Juvenile Court Data
Assets (point location data)	N/A	Indianapolis MSA	Multiple

Appendix L: Letters of Support

INRC letter

IMCPL letter

Metro Ministries letter

City Letter

Appendix M: Disparity Tables and Maps

Social Conditions of Population in Target Area

	Center Township	Balance of County	Marion County
1990 Census Population	182,140	615,019	797,159
1996 Estimated Population	185,296	632,229	817,525
1990 – 1996 % Change in Population	1.73%	2.80%	2.55%
Total Area (sq. mi.)	42.7	360.4	403.1
1996 Population Density (persons per sq. mi.)	4,339	1,754	2,028
1989 Per Capita Income	$9,046	$16,263	$14,614
1989 Households Below Poverty	17,455	18,382	35,837
% of all Households	24.8%	7.4%	11.2%
1989 Female Headed Family Households	14,480	29,752	44,232
% of all Households	20.6%	11.9%	13.8%
Owner Occupied Units as % of All Occupied Units	49.7%	59.0%	57.0%

SOURCE: 1990 Census of Population and Housing
1996 Census Bureau Population Estimates

Observations from Table on Social Conditions:

- Since 1990, the population in Center Township is growing more slowly than the balance of the county. The population in Center Township had declined substantially from 1960 to 1990.
- Even with the decline in population and slower growth since 1990, the population density in Center Township is still nearly 2.5 times that in the balance of the county. Focusing on a limited geography of Center Township will affect many more people per square mile.
- According to the 1990 Census, per capita income in Center Township is much lower than the balance of the county. This income disparity is also reflected in the share of households below poverty. One out of every four households in Center Township is below poverty, which is considerably higher than the 7.4% of households for the balance of the county.
- Nearly one out of every five households in Center Township is a female-headed family household. These households are more vulnerable to social problems and economic distress.
- The rate of home ownership in Center Township is substantially below the balance of the county. This reflects the lower income levels and is associated with a more transient population.

Insert maps here